TRANSACTIONS

OF THE

AMERICAN SOCIETY OF CIVIL ENGINEERS

INDEX

VOLUME 95

1931

SUBJECT INDEX, PAGE 1668
AUTHOR INDEX, PAGE 1682

Titles of papers are in quotation marks when given with the author's name.

VOLUME 95

SUBJECT INDEX

ADDRESSES.

Presidential Address at the Annual Convention at Tacoma, Washington, July 8, 1931. Francis Lee Stuart. 1294.

AIRPORTS.

"Factors Governing the Location of —." Donald M. Baker. 269. Discussion: Stephen Child, Morris Knowles, George D. Burr, N. H. Angell, J. Ogden Marsh, Archer R. Norcross, John Nolen, S. N. Grimm, R. U. St. John, John F. Partridge, William J. Fox, Perry A. Fellows, W. W. Crosby, E. K. Smith, and Clyde M. Wood. 279.

ARCHES.

"Laminated Arch Dams with Forked Abutments." Fred A. Noetzli. (With Discussion.) 533.

"Plastic Flow in Concrete —." Lorenz G. Straub. 613. Discussion: B. F. Jakobsen, C. A. P. Turner, Edward Godfrey, J. H. Griffith, Charles W. Comstock, A. A. Eremin, J. Melan, Fredrik Vogt and Herbert J. Gilkey, E. Probst, Paul Bauman, G. C. Staehle, and A. Floris. 679.

BARS.

"The Training Wall Across the Liao Bar in Manchuria." P. N. Fawcett. (With Discussion.) 969.

BIBLIOGRAPHY.

- of current-meter characteristics by American investigators. 791.
 - of ice in hydro-electric plants. 1145.
 - of Niagara Falls power plants. 26.

BRIDGE PIERS.

"Construction of the James River Bridge Project." R. C. Wilson and Herbert B. Pope. (With Discussion.) 244.

BRIDGES.

- on the Chesapeake and Delaware Canal. 740 et seq.

"Construction of the James River Bridge Project." R. C. Wilson and Herbert B. Pope. 244. Discussion: Wilson T. Ballard, and William Willoughby. 262.

"Impact in Highway —. Final Report of the Special Committee." (With Discussion.) 1089.

"Plastic Flow in Concrete Arches." Lorenz G. Straub. (With Discussion.) 613.

BUILDINGS.

"Florida Hurricane. Final Report of the Committee of the Structural Division." (With Discussion.) 1118.

CANALS.

"The Chesapeake and Delaware Canal." Earl I. Brown. 716. Discussion: F. T. Chambers. 764.

CITY PLANNING.

"- as Related to the Smaller Cities." E. A. Wood. 1075. Discussion: John L. Starkie, O. H. Koch, and Stephen Child. 1080.

CIVIL ENGINEERS.

"The Engineer's Growing Civic Responsibilities": Address at the Annual Convention at Tacoma, Washington, July 8, 1931. Francis Lee Stuart. 1294.

COLUMNS.

"Steel Column Research. Second Progress Report of the Special Committee."
(With Discussion.) 1152.

CONCRETE.

"Baldwin Filtration Plant, Cleveland, Ohio." J. W. Ellms, G. W. Hamlin, A. G. Levy, and J. E. A. Linders. (With Discussion.) 459.

- lining, Moffat Tunnel. 353.

Construction methods and plant layout at Coolidge Dam, in Arizona, 159, Academic of — in dams. 145.

"Plastic Flow in - Arches." Lorenz G. Straub. (With Discussion.) 613.

CONTRACTORS PLANT.

Construction methods and plant layout at Coolidge Dam, in Arizona. 159.

COSTS OF WORK.

Analysis of costs of the Baldwin Filtration Plant, Cleveland, Ohio. 512 et seq. Comparative costs of different types of highways in and adjacent to New York City. 1050.

Cost data, Moffat Tunnel. 369.

"Factors Governing the Location of Airports." Donald M. Baker. (With Discussion.) 269.

Vention at Taxonia, Washington, July 8, 1933 P.

CURRENT METERS.

See METERS.

DAMS

h

Construction methods and plant layout at Coolidge Dam, in Arizona. 159.
"High —": A Symposium. A. J. Wiley, D. C. Henny, F. L. Ransome, and J. G. Tripp. 129. Discussion: F. G. Switzer, Fred A. Noetzli, Edward Godfrey, B. F. Jakobsen, Allen Hazen, H. de B. Parsons, P. Wilhelm Werner, C. A. P. Turner, F. W. Hanna, H. F. Dunham, Lars R. Jorgensen, William P. Creager, L. F. Harza, A. Floris, and Joseph Wright. 169.

Ice thrust on up-stream faces of -. 1143.

"Laminated Arch — with Forked Abutments." Fred A. Noetzli. 533. Discussion: Lars R. Jorgensen, William Cain, B. F. Jakobsen, P. Wilhelm Werner, H. B. Muckleston, Fredrik Vogt, Paul Bauman, F. W. Hanna, and A. A. Eremin. 565.

"The Shannon Power Development in the Irish Free State." A. R. C. Markl. (With Discussion.) 597.

DIKES.

- on Chesapeake and Delaware Canal. 738.

DRAINAGE.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." With Explanatory Statements: J. B. Lippincott, and Elwood Mead. (With Discussion.) 1303.

DREDGING.

"The Chesapeake and Delaware Canal." Earl I. Brown. (With Discussion.)

DRILLING.

- operations, Moffat Tunnel. 344.

EARTHQUAKES.

— in relation to dams. 144, 156.

EARTHWORK.

"The Shannon Power Development in the Irish Free State." A. R. C. Markl. (With Discussion.) 597.

ECONOMICS.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." With Explanatory Statements: J. B. Lippincott, and Elwood Mead. (With Discussion.) 1303.

Railways versus waterways: An economic comparison. 877.

"The Engineer's Growing Civic Responsibilities": Address at the Annual Convention at Tacoma, Washington, July 8, 1931. Francis Lee Stuart. 1294.

ELECTRIC POWER.

"Niagara Power." Norman R. Gibson. (With Discussion.) 1.

"The Shannon Power Development in the Irish Free State." A. R. C. Markl. (With Discussion.) 597.

EMBANKMENT.

"The Shannon Power Development in the Irish Free State." A. R. C. Markl. (With Discussion.) 597.

ENGINEERS.

"The Engineer's Growing Civic Responsibilities": Address at the Annual Convention at Tacoma, Washington, July 8, 1931. Francis Lee Stuart. 1294.

EROSION.

"Silting and Life of Southwestern Reservoirs." R. G. Hemphill. (With Discussion.) 1060.

EVAPORATION.

"— as a Function of Insolation." Burt Richardson. 996. Discussion: H. H. Kimball, C. G. Abbot, D. P. Krynine, R. C. Wells, and N. W. Cummings. 1012.

"Rainfall Characteristics and Their Relation to Soils and Run-Off." C. S. Jarvis. (With Discussion.) 379.

EXCAVATION.

Construction methods and plant layout at Coolidge Dam, in Arizona. 159.

— at Shannon Power Development, Irish Free State. 603.

FILTERS.

See FILTRATION.

FILTRATION.

"Baldwin — Plant, Cleveland, Ohio." J. W. Ellms, G. W. Hamlin, A. G. Levy, and J. E. A. Linders. 459. Discussion: S. M. Van Loan, Harry N. Jenks, James H. Herron, and E. Sherman Chase. 519.

FINANCE.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." With Explanatory Statements: J. B. Lippincott and Elwood Mead. (With Discussion.) 1303.

FLEXURE.

See STRESS.

FOUNDATIONS.

"Experimental Research on Vibration Dampers and Insulators." Stephen E. Slocum. (With Discussion.) 85.

FRAZIL.

See ICE.

FREIGHT.

Railways versus waterways: An economic comparison. 877.

FRICTION.

Air resistance in Moffat Tunnel. 359.

GAUGES.

Recording rain gauge at Chestnut Hill Reservoir, Boston, Mass. 952.

GEOLOGY.

Geological conditions encountered in Moffat Tunnel. 342.

High dams: The viewpoint of the geologist. 149.

HARBORS.

"The Training Wall Across the Liao Bar in Manchuria." P. N. Fawcett. (With Discussion.) 969.

HIGHWAYS.

"— as Elements of Transportation." Fred Lavis. 1020. Discussion: W. W. Crosby, Walter Loring Webb, Jay Downer, S. Johannesson, D. P. Krynine, Harold M. Lewis, Donald M. Baker, Edwin F. Wendt, and H. W. Hudson. 1041.

Through trunk highway through Jersey City and Newark, 1020.

HURRICANES.

"Florida Hurricane. Final Report of the Committee of the Structural Division." (With Discussion.) 1118.

HYDRO-ELECTRIC POWER PLANTS. See POWER PLANTS.

ICE.

Bibliography of — in hydro-electric plants. 1145.

"— as Affecting Power Plants. Final Report of Committee of Power Division."

(With Discussion.) 1134.

June 14 Herry and J. Stramer Clark 518.

IMPACT.

"— in Highway Bridges. Final Report of the Special Committee." (With Discussion.) 1089.

INSOLATION.

"Evaporation as a Function of —." Burt Richardson. (With Discussion.)

INSULATION.

"Experimental Research on Vibration Dampers and Insulators." Stephen E. Slocum. (With Discussion.) 85.

IRRIGATION.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." With Explanatory Statements: J. B. Lippincott, and Elwood Mead. (With Discussion.) 1303.

JETTIES.

- at outlet of Chesapeake and Delaware Canal. 737.

"The Training Wall Across the Liao Bar in Manchuria." P. N. Fawcett. 969.
Discussion: R. D. Goodrich, Herbert Chatley, H. C. Ripley, and B. Okazaki. 984.

LAKES.

Effect of power development on Lake Erie and the Niagara River. 16.
"Regulation of Levels, Flow, and Navigation, Niagara River: Summary and Conclusions of Various Studies." George B. Pillsbury. (With Discussion.) 51.

LAND RECLAMATION.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." With Explanatory Statements: J. B. Lippincott, and Elwood Mead. (With Discussion.) 1303.

Tenning Tolor Coward 15 W.

LAND SLIDES.

- on Chesapeake and Delaware Canal. 733.

LIFT BRIDGES.

Bridges on the Chesapeake and Delaware Canal. 740, et seq.

MEMOIRS OF DECEASED MEMBERS.

Allen, Kenneth, 1437. Allison, William Franklin. 1440. Anderson, Justin Kenderdine. 1442. Ash, Henry Clarke. 1443. Ashmead, Frank Milligan. 1445. Axtell, Frank Foy. 1446. Barnes, Mortimer Grant. 1449. Bent, Stedman. 1663. Berquist, Axel Samuel Frederick. 1451. Black, Alexander Leslie. 1452. Bland, John Carlisle. 1453. Bowers, George. 1456. Bratager, Stoerk Johan. 1457. Brendlinger, Peter Franklin. 1459. Brown, Robert. 1462. Burr, Henry Amsden. 1463. Byers, Maxwell Cunningham. 1465. Cain, William. 1467. Campen, George Linden. 1473. Carson, William Waller. 1475. Cooley, Maurice Wurtz. 1477. Davidson, George. 1428. Dodge, Grenville Mellen. 1432. Duryea, Edwin, Jr. 1478. Edwards, Raymond Arden. 1634.

Fehr, Harrison Robert, Sr. 1480. Felton, Samuel Morse. 1481. Foster, Clarence Marvin. 1664. Freeman, Roger Morse. 1485. Fulton, William James. 1636. Gates, Horace Delphos. 1488. Gerdine, Thomas Golding. 1490. Gilmore, Thomas Nixon. 1492. Goodwin, Arthur Bates. 1637. Hall, Benjamin Mortimer. 1493. Hart, Charles Ellett. 1639. Harvey, Alfred Ernest. 1496. Hawgood, Harry. 1497. Hazen, Allen, 1500. Hemphill, Robert Grier. 1639. Herschel, Clemens. 1419. Hill, Albert Banks. 1503. Hill, Edward Baxter. 1641. Hill, Edwin Allston. 1642. Hill, John Wilmuth. 1506. Hogeland, Albert Harrison. 1509. Holgate, Henry. 1511. Hoxie, Richard Leveridge. 1513. Hoyt, William Hausmer. 1515. Huckaby, Marion Columbus. 1517. Hughes, Hector James. 1518. Jennings, John Edward. 1520. Junkersfeld, Peter. 1522. Kinsley, Thomas Pearson. 1524. Kreutzer, George Charles. 1526. Kwong, King Yang. 1528. Long, Eugene McLean. 1531. Lotter, Henry Howell. 1533. Ludlow, Jacob Lott. 1536. Lundie, John. 1538. MacKay, Henry Martyn. 1541. Maclay, William Walter. 1543. McCarthy, George Arnold. 1545. McClintock, William Edward. 1546. McCoy, Laurence Francis. 1549. McDonald, John Alexander. 1550. McGrew, Anson Burlingame. 1552. Mandigo, Clark Rogers. 1553. Manson, Marsden. 1554. Martin, Charles Cyril. 1556. Minor, Sheldon Elton. 1558. Mitchell, Henry. 1560. Moncrieff, John Mitchell. 1561. Moulton, Guy. 1563. Münster, Andreas Wendelbo. 1565. Nickerson, Ralph Waldo. 1566.

Norman, George H. 1568. Norton, George Harvey. 1569. O'Connor, Cornelius Joseph. 1644. Parks, Charles Wellman. 1571.
Polhemus, James Suydam. 1575.
Pope, James Bond. 1576. Porter, George Frederick. 1577. Porter, Waldo Justin Bickle. 1645. Pratt, William Abbott. 1579. Pugh, Marshall Rogers. 1581. Raitt, John William. 1584. Reed, William Boardman. 1585. Rhodes, Claude Irvin. 1586. Riffle, Franklin. 1587. Rix, Edward Austin. 1590. Rodd, Thomas. 1592. Rode, Hans Henrik. 1594. Rogers, Joseph Warren. 1646. Rostock, John Henry. 1595. Rousseau, Harry Harwood. 1597. Rousseau, Harry Harwood. 1597.
Russell, Richard Lord. 1601.
Samuel, George Frederick. 1603. Scripko, Nicholas Alexander. 1649. Seaman, William Laurie. 1650. Shaffer, Ivan Oscar. 1604. Sharts, Stanley Rush. 1605. Sharts, Stanley Rush. 1605. Simpson, Erastus Roland. 1652. Smith, Bronson Hasbrouck. 1606. Stoll, Harold David. 1653. Storey, Franklin Stevens. 1655. Stubbs, Linton Waddell. 1608. Taylor, Harry. 1609.
Theban, John Gerard. 1656. Tiffany, Walter Checkley. 1658. Tribus, Louis Lincoln. 1612. Turner, Edmund Kimball. 1614. Van Keuren, Charles Augustus. 1615. Van Sant, Robert Lawrence. 1616. Van Zile, Harry Lee. 1617. Vaughan, James Russell. 1662. Vaugnan, James Russell.
Vincent, Edward Franklin. 1619. Webster, Albert Lowry. 1621. Webster, George Smedley. 1423. Whitaker, William Franklin. 1660. Whitfield, James Edward. 1622. Wight, Frank Clinton. 1623. Williams, Frank Martin. 1626. Williams, William Fish. 1628. Witt, Carlton Carpenter. 1630. Yeatman, Morgan Edward. 1632. Yolton, Robert Elgene. 1661. Young, Samuel McCain. 1633.

METEOROLOGY.

"Rainfall Characteristics and Their Relation to Soils and Run-Off." C. S. Jarvis. (With Discussion.) 379.

METERS.

Bibliography of current-meter characteristics by American investigators. 791. "Effect of Turbulence on the Registration of Current --." David L. Yarnell and Floyd A. Nagler. 766. Discussion: Charles S. Bennett, Carl Rohwer, Brehon B. Somervell, N. C. Grover, Burke L. Bigwood, G. H. Nettleton, C. Linden, H. R. Leach, Ludwig A. Ott, B. F. Groat, Forrest Nagler, Robert E. Horton, and Richard Van Vliet. 796.

"Spillway Discharge Capacity of Wilson Dam." Louis G. Puls. (With Discussion.) 316.

PILE DRIVING.

"Construction of the James River Bridge Project." R. C. Wilson and Herbert B. Pope. (With Discussion.) 244.

PILES.

"Construction of the James River Bridge Project." R. C. Wilson and Herbert B. Pope. (With Discussion.) 244.

POWER.

See ELECTRIC POWER.

POWER HOUSES.

See POWER PLANTS.

POWER PLANTS.

Bibliography of ice in hydro-electric plants. 1145.

"Ice as Affecting -. Final Report of Committee of Power Division." (With Discussion.) 1134.

"Niagara Power." Norman R. Gibson. 1. Discussion: Thomas H. Hogg, Frank M. Williams, Charles Keller, William Kelly, R. D. Johnson, Glen E. Edgerton, F. P. Williams, and Lewis B. Stillwell. 29.

"The Shannon Power Development in the Irish Free State." A. R. C. Markl. (With Discussion.) 597.

POWER STATIONS.

See POWER PLANTS.

POWER TRANSMISSION.

Websiter, Alberty Lowers, 1621. "Niagara Power." Norman R. Gibson. (With Discussion.) 1.

RAILROADS.

Railways versus waterways: An economic comparison. 877.

"Relation Between Rail and Waterway Transportation": A Symposium. T. Q. Ashburn, L. D. Cornish, and E. A. Hadley. 861. Discussion: Lewis C. Sorrell, R. B. Kittredge, Henry A. Palmer, J. Parker Snow, Baxter L. Brown, Theodore Brent, Samuel O. Dunn, Henry W. Hobbs, and C. W. Kutz. 905.

See also TUNNELS.

RAINFALL.

"Frequency and Intensity of Excessive Rainfalls at Boston, Massachusetts." Charles W. Sherman. 951. Discussion: W. W. Horner, C. S. Jarvis,

and Milton F. Wagnitz, and Lewis C. Wilcoxen. 961.

"— Characteristics and Their Relation to Soils and Run-Off." C. S. Jarvis. 379. Discussion: George S. Bliss, Brehon B. Somervell, Jesse W. Shuman, Clinton L. Bogert, R. W. Powell, Glen N. Cox, C. R. Pettis, and George C. Danforth. 424.

RATE-MAKING.

"Relation Between Rail and Waterway Transportation": A Symposium. T. Q. Ashburn, L. D. Cornish, and E. A. Hadley. (With Discussion.) 861.

REPORTS OF COMMITTEES.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." J. B. Lippincott, G. M. Bacon, W. H. Code, J. A. Elliott, John E. Field, C. E. Grunsky, M. C. Hinderlider, Burton Smith, G. E. P. Smith, J. C. Stevens, and R. K. Tiffany. 1303. With Explanatory Statements: J. B. Lippincott, and Elwood Mead. 1307. Discussion: George W. Fuller, W. F. Russell, Nils A. Olsen, L. C. Gray, Frank Adams, M. J. Dowd, C. E. Grunsky, S. T. Harding, H. H. Dare, Charles R. Hedke, Charles Kirby Fox, Rhodes E. Rule, George M. Bacon, G. E. P. Smith, R. K. Tiffany, David Weeks, John A. Widtsoe, F. H. Newell, A. D. Lewis, Joseph Jacobs, F. N. Cronholm, R. I. Meeker, E. B. Debler, and John E. Field. 1328.

"Florida Hurricane. Final Report of the Committee of the Structural Division." H. G. Balcom, D. C. Coyle, F. R. McMillan, Lee H. Miller, and Clyde T. Morris. 1118. Discussion: F. O. Dufour, T. L. Condron,

E. W. Stern, and David A. Molitor. 1127.

"Ice as Affecting Power Plants. Final Report of Committee of Power Division." Francis C. Shenehon, John R. Freeman, Daniel W. Mead, Louis C. Sabin, and William T. Walker. 1134. Discussion: C. M. Daily. 1151.

"Impact in Highway Bridges. Final Report of the Special Committee." A. H. Fuller, Arthur R. Eitzen, E. F. Kelley, and F. E. Turneaure. 1089. Dis-

cussion: Searcy B. Slack and Llewellyn N. Edwards. 1112.

"Sewage Works Operation and Control. Final Report of the Committee of the Sanitary Engineering Division." C. E. Keefer, W. R. Copeland, A. L.

Fales, J. A. Vogleson, and F. H. Waring. 1273.

"Steel Column Research. Second Progress Report of the Special Committee."
F. E. Turneaure, C. G. E. Larsson, B. R. Leffler, G. L. Taylor, and S. H. Widdicombe. 1152. Discussion: Henry S. Prichard, E. H. Salmon, and J. H. Griffith. 1255.

RESERVOIRS.

h

1.

"Baldwin Filtration Plant, Cleveland, Ohio." J. W. Ellms, G. W. Hamlin, A. G. Levy, and J. E. A. Linders. (With Discussion.) 459.

"Evaporation as a Function of Insolation." Burt Richardson. (With Discussion.) 996.

High dams: The viewpoint of the geologist. 149.

"Silting and Life of Southwestern —." R. G. Hemphill. 1060. Discussion: T. U. Taylor. 1073.

RIVER REGULATION.

See RIVERS.

RIVERS.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." With Explanatory Statements: J. B. Lippincott, and Elwood. Mead. (With Discussion.) 1303.

Effect of power development on Lake Erie and the Niagara River. 16. Limitation of diversion of water of Niagara River at Niagara Falls. 14, 36.

"Regulation of Levels, Flow, and Navigation, Niagara River: Summary and Conclusions of Various Studies." George B. Pillsbury. 51. Discussion: Robert E. Horton, Lynn L. Davis, Theron M. Ripley, E. W. Lane, and F. G. Way. 63.

"Silting and Life of Southwestern Reservoirs." R. G. Hemphill. (With Discussion.) 1060.

"The Training Wall Across the Liao Bar in Manchuria." P. N. Fawcett. (With Discussion.) 969.

Ultimate development of Niagara Falls. 22.

ROADS.

Comparative costs of different types of highways in and adjacent to New York City. 1050.

"Highways as Elements of Transportation." Fred Lavis. (With Discussion.) 1020.

RUN-OFF.

"Rainfall Characteristics and Their Relation to Soils and —." C. S. Jarvis. (With Discussion.) 379.

SEWAGE DISPOSAL.

"Sewage Works Operation and Control. Final Report of the Committee of the Sanitary Engineering Division." 1273.

SEWAGE TREATMENT.

See SEWAGE DISPOSAL.

SEWAGE WORKS.

See SEWAGE DISPOSAL.

SHIP CANALS.

See CANALS.

SILT.

"Silting and Life of Southwestern Reservoirs." R. G. Hemphill. (With Discussion.) 1060.

SOILS.

"Rainfall Characteristics and Their Relation to — and Run-Off." C. S. Jarvis. (With Discussion.) 379.

SPILLWAYS.

"Spillway Discharge Capacity of Wilson Dam." Louis G. Puls. (With Discussion.) 316.

STEEL.

"— Column Research. Second Progress Report of the Special Committee." (With Discussion.) 1152.

STRAIN.

"Steel Column Research. Second Progress Report of the Special Committee."
(With Discussion.) 1152.

STREAMS.

See RIVERS.

STRESS.

"Impact in Highway Bridges. Final Report of the Special Committee." (With Discussion.) 1089.

"Laminated Arch Dams with Forked Abutments." Fred A. Noetzli. (With Discussion.) 533.

"Plastic Flow in Concrete Arches." Lorenz G. Straub. (With Discussion.) 613.

"Steel Column Research. Second Progress Report of the Special Committee."
(With Discussion.) 1152.

STRUCTURES, THEORY OF.

"Laminated Arch Dams with Forked Abutments." Fred A. Noetzli. (With Discussion.) 533.

"Plastic Flow in Concrete Arches." Lorenz G. Straub. (With Discussion.) 613.

SURVEYING.

£

S-

"Adjustment of Transit and Stadia Traverses." Howard S. Rappleye. 232.
Discussion: Lowell O. Stewart, Paul H. Underwood, F. H. Peters, and H. Parry. 237.

TEMPERATURE.

"Evaporation as a Function of Insolation." Burt Richardson. (With Discussion.) 996.

TESTING MACHINES.

"Experimental Research on Vibration Dampers and Insulators." Stephen E. Slocum. (With Discussion.) 85.

"Steel Column Research. Second Progress Report of the Special Committee."
(With Discussion.) 1152.

TOPOGRAPHY.

Significance of — at a dam site. 151.

TRAFFIC.

— surveys. 1025, et seq.
See also FREIGHT.

TRAIN RESISTANCE.

Air resistance in Moffat Tunnel. 359.

TRAINING WALLS.

See JETTIES.

TRANSPORTATION.

"Factors Governing the Location of Airports." Donald M. Baker. (With Discussion.) 269.

"Highways as Elements of —." Fred Lavis. (With Discussion.) 1020. Railways versus waterways: An economic comparison. 877.

"Relation Between Rail and Waterway —": A Symposium. T. Q. Ashburn, L. D. Cornish, and E. A. Hadley. (With Discussion.) 861. Waterway — from the viewpoint of operation. 862.

TUNNELS. To Joseph Telephonia Ladari Charamat de

"Completion of Moffat Tunnel of Colorado." Clifford Allen Betts. 334. Discussion: J. Vipond Davies, R. H. Keays, and A. A. Eremin. 372. Cost data, Moffat Tunnel. 369.

UPLIFT (HYDROSTATIC).

"High Dams": A Symposium. A. J. Wiley, D. C. Henny, F. L. Ransome, and J. G. Tripp. (With Discussion.) 129.

VENTILATION.

"Completion of Moffat Tunnel of Colorado." Clifford Allen Betts. (With Discussion.) 334.

- of the Moffat Tunnel. 356.

VIBRATION.

"Experimental Research on — Dampers and Insulators." Stephen E. Slocum. 85. Discussion: J. P. Den Hartog, Francis G. Tatnall, and W. M. Dawley. 106.

WATER.

"Baldwin Filtration Plant, Cleveland, Ohio." J. W. Ellms, G. W. Hamlin, A. G. Levy, and J. E. A. Linders. (With Discussion.) 459.

WATER, FLOW OF, IN OPEN CHANNELS.

Effect of tides and currents on Chesapeake and Delaware Canal. 758.

"Effect of Turbulence on the Registration of Current Meters." David L.

Yarnell and Floyd A. Nagler. (With Discussion.) 766.

"Regulation of Levels, Flow, and Navigation, Niagara River: Summary and Conclusions of Various Studies." George B. Pillsbury. (With Discussion.) 51.

WATER, FLOW OF, OVER DAMS AND WEIRS.

"Spillway Discharge Capacity of Wilson Dam." Louis G. Puls. 316. Discussion: Cecil E. Pearce, and J. H. Jones. 330.

WATER LAWS.

"A National Reclamation Policy. Report of the Committee of the Irrigation Division." With Explanatory Statements: J. B. Lippincott, and Elwood Mead. (With Discussion.) 1303.

WATER POWER.

ith

rn,

is-

ne.

ith

m.

ey.

in,

L.

"Niagara Power." Norman R. Gibson. (With Discussion.) 1.
"The Shannon Power Development in the Irish Free State." A. R. C. Markl.
597. Discussion: L. J. Bevan. 612.

WATER STORAGE.

"Silting and Life of Southwestern Reservoirs." R. G. Hemphill. (With Discussion.) 1060.

WATERWAYS.

Railways versus -: An economic comparison. 877.

"Relation Between Rail and Waterway Transportation": A Symposium. T. Q. Ashburn, L. D. Cornish, and E. A. Hadley. (With Discussion.) 861. Waterway transportation from the viewpoint of operation. 862.

WATER-WORKS.

See FILTRATION.

WEIRS.

See WATER, FLOW OF, OVER DAMS AND WEIRS.

WIND

"Florida Hurricane. Final Report of the Committee of the Structural Division."
(With Discussion.) 1118.

WIND BRACING.

"Florida Hurricane. Final Report of the Committée of the Structural Division."
(With Discussion.) 1118.

WIND PRESSURE.

"Florida Hurricane. Final Report of the Committee of the Structural Division."
(With Discussion.) 1118.

ZONING OF CITIES.

"City Planning as Related to the Smaller Cities." E. A. Wood. (With Discussion.) 1075.

AUTHOR INDEX

WATER FLOW OF, OVER DAMS AND WEIRS.

WATERLAWS

ABBOT, C. G.

Insolation and evaporation. 1013.

ADAMS, FRANK.

A National reclamation policy. 1331.

ALLEN, KENNETH.

Memoir of, 1437.

ALLISON, WILLIAM FRANKLIN.

Memoir of. 1440.

ANDERSON, JUSTIN KENDERDINE.

Memoir of. 1442.

ANGELL, N. H.

Location of airports. 285.

ASH, HENRY CLARKE.

Memoir of. 1443.

ASHBURN, T. O.

"Waterway Transportation from the Viewpoint of Operation." 862.

ASHMEAD, FRANK MILLIGAN.

Memoir of, 1445. W GMA SMAG SERVO SO WOLE METAWARE

AXTELL, FRANK FOY.

Memoir of. 1446.

BACON, GEORGE M.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303, 1362. (With December) 1118

BAKER, DONALD M.

"Factors Governing the Location of Airports." 269. Highways as elements of transportation. 1053.

BALCOM, H. G. SALTID TO DYLINOS

"Florida Hurricane. Final Report of the Committee of the Structural Division." continue of 1025 miles

CARSON, WILLIAM WALLER

BALLARD, WILSON T. MICZNARY STITE SEDULIDINARY

James River Bridge project. 262.

BARNES, MORTIMER GRANT.

Memoir of. 1449.

Laminated arch dams. 583. Plastic flow in concrete arches. 704.

BENNETT, CHARLES S.

Effect of turbulence on current meters. 7%.

BENT, STEDMAN.

Memoir of. 1663.

BERQUIST, AXEL SAMUEL FREDERICK.

Memoir of. 1451.

BETTS, CLIFFORD ALLEN.

"Completion of Moffat Tunnel of Colorado." 334.

BEVAN, L. J.

The Shannon Power Development. 612.

BIGWOOD, BURKE L.

Effect of turbulence on current meters. 811.

BLACK, ALEXANDER LESLIE.

Memoir of, 1452.

BLAND, JOHN CARLISLE.

Memoir of. 1453.

BLISS, GEORGE S. Land Land Concounted for interpretable aft.

Rainfall characteristics. 424.

BOGERT, CLINTON L.

Rainfall characteristics. 432.

BOWERS, GEORGE.

Memoir of. 1456.

BRATAGER, STOERK JOHAN.

Memoir of. 1457.

HENNETT CHARLES S

BLACK, ALEXANDER LESLIE

Memoir of. 1459.

BRENT, THEODORE.

Rail and waterway transportation. 919.

Rail and waterway transportation. 917.

BROWN, EARL I.

"The Chesapeake and Delaware Canal." 716.

BROWN, ROBERT.

Memoir of. 1462.

BURR, GEORGE D.

Location of airports. 283.

ACCOMPANY OF A STANDARD AND ASSESSMENT OF A STANDARD AND A STANDARD AND ASSESSMENT OF A

BURR, HENRY AMSDEN.

Memoir of, 1463.

BYERS, MAXWELL CUNNINGHAM.

Memoir of, 1465.

CAIN, WILLIAM.

Laminated arch dams. 566.

Memoir of. 1467.

CAMPEN, GEORGE LINDEN.

Memoir of. 1473.

CARSON, WILLIAM WALLER.
Memoir of. 1475.

CHAMBERS, F. T.

The Chesapeake and Delaware Canal. 764.

CHASE, E. SHERMAN.

Baldwin Filtration Plant, Cleveland. 529.

CHATLEY, HERBERT.

Training wall across Liao Bar, Manchuria. 985.

CHILD, STEPHEN.

City planning for smaller cities. 1084.

Location of airports. 279.

CODE, W. H.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303.

COMSTOCK, CHARLES W.

Plastic flow in concrete arches. 694.

CONDRON, T. L.

Effects of Florida hurricane. 1128.

COOLEY. MAURICE WURTZ.

Memoir of. 1477.

COPELAND, W. R.

"Sewage Works Operation and Control. Final Report of the Committee of the Sanitary Engineering Division." 1273.

CORNISH, L. D.

"Railways Versus Waterways: An Economic Comparison." 877.

COX, GLEN N.

Rainfall characteristics. 439.

COYLE, D. C.

"Florida Hurricane. Final Report of the Committee of the Structural Division."

CREAGER, WILLIAM P.

High dams. 197.

CRONHOLM, F. N.

A National reclamation policy. 1395.

CROSBY, W. W.

Highways as elements of transportation. 1041. Location of airports. 308.

CUMMINGS, N. W.

Insolation and evaporation. 1017.

DAILY, C. M.

Ice as affecting power plants. 1151.

DANFORTH, GEORGE C.

Rainfall characteristics. 444.

COULTY WALLEGE WHRTH

JUST STREET, ON HEINER

A Nament , broken where 1995

feli - strongeleirog and out of sel

CHEAGER, WILLIAM P.

DAILY, C. M.

Statistical Continues Menal Secretary Mexicon concess the Sunc

DARE, H. H.

A National reclamation policy. 1343.

DAVIDSON, GEORGE.

Memoir of. 1428.

DAVIES, J. VIPOND.

Completion of Moffat Tunnel. 372.

DAVIS, LYNN L.

Regulation of Niagara River. 75.

DAWLEY, W. M.

Vibration dampers and insulators. 110.

DEBLER, E. B.

A National reclamation policy. 1403.

DEN HARTOG, J. P.

Vibration dampers and insulators. 106.

DODGE, GRENVILLE MELLEN.

Memoir of. 1432.

DOWD, M. J.

A National reclamation policy. 1335.

DOWNER, JAY.

* Highways as elements of transportation. 1044.

DUFOUR, F. O.

Effects of Florida hurricane. 1127.

DUNHAM, H. F.

High dams. 195.

DUNN, SAMUEL O.

Rail and waterway transportation. 921.

DURYEA, EDWIN, Jr.

Memoir of. 1478.

EDGERTON, GLEN E.

Niagara power. 44.

EDWARDS, LLEWELLYN N.

Impact in highway bridges. 1112. Well would not be furnished A

EDWARDS, RAYMOND ARDEN.

Memoir of. 1634.

EITZEN, ARTHUR R.

"Final Report of the Special Committee on Impact in Highway Bridges." 1089.

ELLIOTT, J. A.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303.

ELLMS, J. W.

"Baldwin Filtration Plant, Cleveland, Ohio." 459.

EREMIN, A. A.

Completion of Moffat Tunnel. 375. 2011 valor solicendor brooker A
Laminated arch dams. 589.

Plastic flow in concrete arches. 696.

FALES, A. L.

"Sewage Works Operation and Control. Final Report of the Committee of the Sanitary Engineering Division." 1273.

"The Training Wall Across the Liao Bar in Manchuria." 969.

FEHR, HARRISON ROBERTS, Sr. S MAMSON MOSSIO

Memoir of, 1480.

FELLOWS, PERRY A.

Location of airports. 308.

FELTON, SAMUEL MORSE.

Memoir of. 1481.

FIELD, JOHN E.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303, 1408.

GILMORE, THOMAS NIXON.

GOODRICH, R. D.

FLORIS, A.

High dams, 200.

Plastic flow in concrete arches, 710.

FOSTER, CLARENCE MARVIN. SETAR SUHTRA , WIWGOOD

Memoir of. 1664.

FOX, CHARLES KIRBY.

A National reclamation policy. 1357.

FOX, WILLIAM J.

Location of airports. 296.

FREEMAN, JOHN R.

"Ice as Affecting Power Plants. Final Report of Committee of Power Division." 1134.

FREEMAN, ROGER MORSE.

Memoir of, 1485.

FULLER, A. H.

"Final Report of the Special Committee on Impact in Highway Bridges." 1089.

I

1

1

1

1

1

FULLER, GEORGE W.

A National reclamation policy. 1328.

FULTON, WILLIAM JAMES.

Memoir of. 1636.

GATES, HORACE DELPHOS. Memoir of. 1488.

GERDINE, THOMAS GOLDING.

Memoir of, 1490.

GIBSON, NORMAN R.

"Niagara Power." 1.

GILKEY, HERBERT J.

Plastic flow in concrete arches. 699.

GILMORE, THOMAS NIXON.

Memoir of. 1492.

GODFREY, EDWARD.

High dams. 174.

Plastic flow in concrete arches. 685.

GOODRICH, R. D.

Training wall across Liao Bar, Manchuria, 984.

GOODWIN, CLARENCE MARVIN ... SETAB RUHTRA , NIWDOOD

Memoir of, 1637.

GR	AW	T	-
an	n I	, 4	to C

A National reclamation policy. 1331.

GRIFFITH, J. H.

Plastic flow in concrete arches. 688. Steel column research. 1267.

GRIMM, S. N. S EMISIANO MAGSH

Location of airports. 290.

GROAT, B. F. SHIRLD TRANCH ALTHUMAN

Effect of turbulence on current meters. 830.

GROVER, N. C.

Effect of turbulence on current meters. 806.

GRUNSKY, C. E.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303, 1338.

HADLEY, E. A.

"Relation Between Rail and Waterway Transportation." 898.

HALL, BENJAMIN MORTIMER.

Memoir of. 1493.

HAMLIN, G. W.

"Baldwin Filtration Plant, Cleveland, Ohio." 459.

HANNA, F. W.

High dams. 192. Laminated arch dams. 586.

formation and the second

HARDING, S. T.

A National reclamation policy. 1341.

HART, CHARLES ELLETT.

Memoir of. 1639.

HARVEY, ALFRED ERNEST.

Memoir of. 1496.

HARZA, L. F.

High dams. 198.

HAWGOOD, HARRY.

Memoir of. 1497.

GRAY, L. C.

HAZEN, ALLEN.

High dams. 183. Memoir of. 1500.

HEDKE, CHARLES R.

A National reclamation policy. 1346.

HEMPHILL, ROBERT GRIER.

Memoir of. 1639.

"Silting and Life of Southwestern Reservoirs." 1060.

HENNY, D. C.

"Classification, Selection, and Adaptation of High Dams." 139.

HERRON, JAMES H. The property of the property

Baldwin Filtration Plant, Cleveland. 528.

HERSCHEL, CLEMENS.

Memoir of. 1419. " The second of the second

HILL, ALBERT BANKS. SEMITROM MIMALINES JAAH

Memoir of. 1503.

HILL, EDWARD BAXTER.

. Memoir of. 1641. " Memoir of the "and the Memoir of the

HILL, EDWIN ALLSTON.

Memoir of. 1642.

HILL, JOHN WILMUTH.

Memoir of, 1506.

HINDERLIDER, M. C.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303.

HOBBS, HENRY W.

Rail and waterway transportation. 932.

HOGELAND, ALBERT HARRISON.

Memoir of. 1509.

'N T ANGLED

HARDING S. T.

Laminated arriv daths. 580

HARVEY, ALFRED ERNEST.

Memore of, 1496.

HARZA, L. F.

HOLGATE, HENRY.
Memoir of. 1511.

HORNER, W. W.

Excessive rainfall at Boston, Mass. 961. A stringer paradoally govilled.

HORTON, ROBERT E.

Effect of turbulence on current meters. 840.

Regulation of Niagara River. 63.

HOXIE, RICHARD LEVERIDGE.

Memoir of. 1513.

HOYT, WILLIAM HAUSMER.

Memoir of. 1515.

HUCKABY, MARION COLUMBUS. The restained school organization and the marion of the state of the s

HUGHES, HECTOR JAMES. A JAMES AND Memoir of. 1518. The second has estimated because of the cross of the second has been also section.

JACOBS, JOSEPH.

A National reclamation policy. 1392.

JAKOBSEN, B. F.

High dams. 179.

Laminated arch dams. 568.

Plastic flow in concrete arches. 679.

MOSSAGG SAMOHT, VELSUITA

Excessive rainfall at Boston, Mass. 962.

"Rainfall Characteristics and Their Relation to Soils and Run-Off.". 379.

ion

Baldwin Filtration Plant, Cleveland. 519.

JENNINGS, JOHN EDWARD.

Memoir of. 1520.

H.O. HOOM

Memoir of. 1520.

JOHANNESSON, S.

Highways as elements of transportation. 1045.

JOHNSON, R. D.

Niagara power. 43.

JONES, J. H.

Spillway discharge capacity. 332.

JORGENSEN, LARS R.

High dams. 196. Laminated arch dams. 565.

JUNKERSFELD, PETER.

Memoir of. 1522.

KEAYS, R. H.

Completion of Moffat Tunnel. 374.

KEEFER. C. E.

"Sewage Works Operation and Control. Final Report of the Committee of the Sanitary Engineering Division." 1273.

KELLER, CHARLES.

Niagara power. 36.

KELLEY, E. F.

"Final Report of the Special Committee on Impact in Highway Bridges." 1089.

Sal mald seporal in Religious submitted

KELLY, WILLIAM.

Niagara power. 41.

KIMBALL, H. H.

Insolation and evaporation. 1012.

KINSLEY, THOMAS PEARSON.

Memoir of. 1524.

KITTREDGE, R. B.

Rail and waterway transportation. 911.

KNOWLES, MORRIS.

Location of airports. 281.

City planning for smaller cities. 1081.

KREUTZER, GEORGE CHARLES.

Memoir of. 1526.

KRYNINE, D. P.

Highways as elements of transportation. 1046. Insolation and evaporation. 1013.

KUTZ, C. W.

Rail and waterway transportation. 934.

KWONG. KING YANG.

Memoir of. 1528.

LANE, E. W.

Regulation of Niagara River. 80.

LARSSON, C. G. E.

"Second Progress Report of the Special Committee on Steel Column Research." 1152.

LAVIS, FRED.

e of

1089.

"Highways as Elements of Transportation." 1020.

LEACH, H. R.

Effect of turbulence on current meters. 816.

LEFFLER, B. R.

"Second Progress Report of the Special Committee on Steel Column Research."

THE RESERVE

LEVY, A. G.

"Baldwin Filtration Plant, Cleveland, Ohio." 459.

LEWIS, A. D.

A National reclamation policy. 1388.

LEWIS, HAROLD M.

Highways as elements of transportation. 1047.

LINDEN, C. Effect of turbulence on current meters. 814.

LINDERS, J. E. A.

"Baldwin Filtration Plant, Cleveland, Ohio." 459.

LIPPINCOTT, J. B.

- "A National Reclamation Policy: Explanatory Statement Regarding Report of the Committee of the Irrigation Division." 1307.
- "'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303.

LONG, EUGENE McLEAN.

Memoir of. 1531.

LOTTER, HENRY HOWELL.

Memoir of, 1533.

LUDLOW, JACOB LOTT.

Memoir of, 1536.

LUNDIE, JOHN.

Memoir of, 1538,

MacKAY, HENRY MARTYN.

Memoir of. 1541.

MACLAY, WILLIAM WALTER.

Memoir of, 1543.

McCARTHY, GEORGE ARNOLD.

Memoir of. 1545.

McCLINTOCK, WILLIAM EDWARD.

Memoir of. 1546.

McCOY, LAURENCE FRANCIS.

Memoir of, 1549.

McDONALD, JOHN ALEXANDER.

Memoir of. 1550.

McGREW, ANSON BURLINGAME.

Memoir of. 1552.

McMILLAN, F. R.

"Florida Hurricane. Final Report of the Committee of the Structural Division." 1118.

LINDERS J. E. A.

MANDIGO, CLARK ROGERS.

Memoir of. 1553.

Memoir of. 1554. MANSON, MARSDEN.

MARKL, A. R. C.

"The Shannon Power Development in the Irish Free State." 597.

MARSH, J. OGDEN.

Location of airports. 286.

MARTIN, CHARLES CYRIL.

Memoir of, 1556.

MEAD, DANIEL W.

"Ice as Affecting Power Plants, Final Report of Committee of Power

MEAD, ELWOOD.

"A National Reclamation Policy: Economic Aspects of Federal Reclamation." 1321.

MEEKER, R. I.

A National reclamation policy. 1401. OGLAW HYLIAA MOSSENDIM

MELAN, J.

Plastic flow in concrete arches. 698.

MILLER, LEE H.

"Florida Hurricane. Final Report of the Committee of the Structural Division." 1118.

Allemair of 1508 .

MINOR, SHELDON ELTON.

Memoir of. 1558.

MITCHELL, HENRY.

Memoir of. 1560. H 308040 RANSON

MOLITOR, DAVID A.

Effects of Florida hurricane. 1131.

MONCRIEFF, JOHN MITCHELL. Memoir of. 1561.

MORRIS, CLYDE T.

"Florida Hurricane. Final Report of the Committee of the Structural Division." 1118. A state of the state of t

MOULTON, GUY.

Memoir of. 1563.

MUCKLESTON, H. B.

Laminated arch dams. 573.

MUNSTER, ANDREAS WENDELBO.

Memoir of. 1565.

NAGLER, FLOYD A.

"Effect of Turbulence on the Registration of Current Meters." 766.

NAGLER, FORREST.

Effect of turbulence on current meters. 834.

NETTLETON, G. H.

Effect of turbulence on current meters. 812.

NEWELL, F. H.

A National reclamation policy. 1383.

NICKERSON, RALPH WALDO.

Memoir of. 1566.

NOETZLI, FRED A.

High dams. 171.

"Laminated Arch Dams with Forked Abutments." 533.

MOLITOR, DAVID A.

NOLEN, JOHN.

Location of airports. 288.

NORCROSS, ARCHER R.

Location of airports. 287.

NORMAN, GEORGE H.

Memoir of. 1568.

NORTON, GEORGE HARVEY.

Memoir of. 1569.

O'CONNOR, CORNELIUS JOSEPH.

Memoir of. 1644.

OKAZAKI, B.

Training wall across Liao Bar, Manchuria. 987.

OLSEN, NILS A.

A National reclamation policy. 1331.

OTT, LUDWIG A.

Effect of turbulence on current meters. 826.

PALMER, HENRY A.

Rail and waterway transportation. 914.

PARKS, CHARLES WELLMAN.

Memoir of. 1571.

PARRY, H. 3 .T28039

Transit and stadia traverses. 241.

PARSONS, H. de B.
High dams. 184.

PARTRIDGE, JOHN F.

Location of airports. 296.

PEARCE, CECIL E.

Spillway discharge capacity. 330.

PETERS, F. H.

Transit and stadia traverses. 240.

PETTIS, C. R.
Rainfall characteristics. 440.

PILLSBURY, GEORGE B.

"Regulation of Levels, Flow, and Navigation, Niagara River: Summary and
Conclusions of Various Studies." 51.

POLHEMUS, JAMES SUYDAM. MAMUSIAOR MALKILW , CHIEF Memoir of, 1575.

POPE, HERBERT B.

"Construction of the James River Bridge Project." 244.

POPE, JAMES BOND.

Memoir of. 1576.

AND Seminated to indicate an indicate an indicate an indicate and indica

PORTER, GEORGE FREDERICK. MILIMASH ALIGHIST
Memoir of. 1577. ASSI No mondal

*DESHN NILS A

PORTER, WALDO JUSTIN BICKLE.

Memoir of. 1645.

POWELL, R. W.

Rainfall characteristics, 432.

PRATT, WILLIAM ABBOTT:

Memoir of. 1579.

PRICHARD, HENRY S.

Steel column research. 1255.

PROBST, E.

Plastic flow in concrete arches. 703.

PUGH, MARSHALL ROGERS. Color California Coloreda de California de C

Memoir of. 1581.

PULS, LOUIS G.

"Spillway Discharge Capacity of Wilson Dam." 316.

RAITT, JOHN WILLIAM.

Memoir of. 1584.

RANSOME, F. L.

"High Dams: The Viewpoint of the Geologist." 149.

RAPPLEYE, HOWARD S.

"Adjustment of Transit and Stadia Traverses." 232.

RAY, F. G.

Regulation of Niagara River. 81.

REED, WILLIAM BOARDMAN. MAGYUZ ZAMAL ZUMEHADA

Memoir of. 1585.

RHODES, CLAUDE IRVIN.

Memoir of. 1586. The second regard and a second of the maintainment

RICHARDSON, BURT.

"Evaporation as a Function of Insolation." 996.

RIFFLE, FRANKLIN.

Memoir of. 1587.

SHAMAN, WILLIAM LAURIE.

RIPLEY, H. C.

Training wall across Liao Bar, Manchuria. 986.

RIPLEY, THERON M.

Regulation of Niagara River. 79.

RIX. EDWARD AUSTIN.

Memoir of. 1590.

RODD, THOMAS.

Memoir of, 1592.

RODE, HANS HENRIK.

Memoir of. 1594.

ROGERS, JOSEPH WARREN.

Memoir of. 1646.

ROHWER, CARL.

Effect of turbulence on current meters. 797.

ROSTOCK, JOHN HENRY.

Memoir of. 1595.

ROUSSEAU, HARRY HARWOOD.

Memoir of. 1597.

RULE, RHODES E.

A National reclamation policy, 1360.

RUSSELL, RICHARD LORD.

Memoir of. 1601.

RUSSELL, W. F.

A National reclamation policy. 1329.

SABIN, LOUIS C. ADUDRAS AN MORMORA ATTIMA

"Ice as Affecting Power Plants. Final Report of Committee of Power Division." 1134.

ST. JOHN, R. U.

Location of airports. 292.

SALMON, E. H.

Steel column research. 1258.

SAMUEL, GEORGE FREDERICK.

Memoir of. 1603.

SCRIPKO, NICHOLAS ALEXANDER. Memoir of. 1649.

SEAMAN, WILLIAM LAURIE.

Memoir of. 1650.

SHAFFER, IVAN OSCAR.

Memoir of. 1604.

SHARTS, STANLEY RUSH. Memoir of. 1605.

SHENEHON, FRANCIS C.

"Ice as Affecting Power Plants. Final Report of Committee of Power

Division." 1134.

SHERMAN, CHARLES W.

"Frequency and Intensity of Excessive Rainfalls at Boston, Massachusetts."

SHUMAN, JESSE W.

Rainfall characteristics. 426.

SIMPSON, ERASTUS ROLAND.

Memoir of. 1652.

SLACK, SEARCY B.

Impact in highway bridges. 1112.

SLOCUM, STEPHEN E.

"Experimental Research on Vibration Dampers and Insulators." 85.

SMITH, BRONSON HASBROUCK.

Memoir of. 1606.

SMITH, BURTON.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303.

RUSSELL, BICHARD LORD.

SARIN, LOUIS, C.

SMITH, E. K.

Location of airports. 309.

SWITZER F. G.

TAYLOR T. U.

SMITH, G. E. P.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303, 1364.

SNOW, J. PARKER.

Rail and waterway transportation. 915.

SOMERVELL, BREHON B.

Effect of turbulence on current meters. 800.

Rainfall characteristics. 424.

SORRELL, LEWIS C.

Rail and waterway transportation. 905.

STAEHLE, G. C.

Plastic flow in concrete arches. 709.

STARKIE, JOHN L.

City planning for smaller cities. 1080.

STERN, E. W.

Effects of Florida hurricane, 1128.

STEVENS, J. C.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303.

STEWART, LOWELL O.

Transit and stadia traverses. 237. MJOOMIA 2000 Progress

STILLWELL, LEWIS B.

Niagara power. 48.

STOLL, HAROLD DAVID.

Memoir of. 1653.

STOREY, FRANKLIN STEVENS.

Memoir of. 1655.

STRAUB, LORENZ G.

"Plastic Flow in Concrete Arches." 613.

STUART, FRANCIS LEE.

"The Engineer's Growing Civic Responsibilities": Address at the Annual Convention, Tacoma, Washington, July 8, 1931. 1294.

"What Report of the Special Committee on Impact in Mathematical pages a page

STUBBS. LINTON WADDELL.

Memoir of. 1608. mol the Com. 801 . To heavy Newson of the Com. 801 . To rioman home

SWITZER, F. G.

High dams. 169.

SMITH G E P.

TATNALL, FRANCIS G.

TAYLOR, G. L.

"Second Progress Report of the Special Committee on Steel Column Research."

TAYLOR, HARRY.

Memoir of, 1609.

TAYLOR, T. U. Santie and the Ton and the T

Silting of Southwestern reservoirs. 1073.

THEBAN, JOHN GERARD.

Memoir of. 1656.

TIFFANY, R. K.

"'A National Reclamation Policy'. Report of the Committee of the Irrigation Division." 1303, 1371.

TIFFANY, WALTER CHECKLEY.

Memoir of. 1658.

TRIBUS. LOUIS LINCOLN.

Memoir of, 1612.

TRIPP, J. G.

"Construction Methods and Plant Layout at Coolidge Dam, in Arizona." 159.

TURNEAURE, F. E.

"Final Report of the Special Committee on Impact in Highway Bridges." 1089. "Second Progress Report of the Special Committee on Steel Column Research."

TURNER, C. A. P.

High dams. 188.
Plastic flow in concrete arches. 682.

STUART, FRANCIS LEE.

TURNER, EDMUND KIMBALL.

Memoir of. 1614. Mart agent 8 glot morandistall account morthey

TI	N	D	ER	W	0	0	D	P	A	TI	T.	H.	

Transit and stadia traverses. 237.

VAN KEUREN, CHARLES AUGUSTUS. A JULIME MORORD MATERIAW

Memoir of. 1615.

VAN LOAN, S. M.

Baldwin Filtration Plant, Cleveland. 519.

VAN SANT, ROBERT LAWRENCE.

Memoir of. 1616.

VAN VLIET, RICHARD.

Effect of turbulence on current meters, 854.

VAN ZILE, HARRY LEE.

Memoir of. 1617.

VAUGHAN, JAMES RUSSELL.

Memoir of. 1662.

VINCENT, EDWARD FRANKLIN.

Memoir of. 1619.

VOGLESON, J. A.

11

"Sewage Works Operation and Control. Final Report of the Committee of the Sanitary Engineering Division." 1273.

VOGT, FREDRIK.

Laminated arch dams. 574. Plastic flow in concrete arches. 699.

WAGNITZ, MILTON F.

Excessive rainfall at Boston, Mass. 963. MOTHED MMASS. THOUW

WALKER, WILLIAM T.

"Ice as Affecting Power Plants. Final Report of Committee of Power Division." 1134.

WARING, F. H.

"Sewage Works Operation and Control. Final Report of the Committee of the Sanitary Engineering Division." 1273.

WEBB, WALTER LORING.

Highways as elements of transportation. 1042.

WEBSTER, ALBERT LOWRY.
Memoir of. 1621.

WEBSTER, GEORGE SMEDLEY, TYZUDUA ZELIKAHO MERURA MAW Memoir of, 1423.

WEEKS, DAVID.

A National reclamation policy. 1373.

WELLS, R. C.

Insolation and evaporation. 1016.

WENDT, EDWIN F.

Highways as elements of transportation. 1054. The provided to the state of transportation.

WERNER, P. WILHELM.

High dams. 186.

Laminated arch dams. 572.

WHITAKER, WILLIAM FRANKLIN.

Memoir of. 1660.

WHITFIELD, JAMES EDWARD.

Memoir of, 1622.

WIDDICOMBE, S. H.

"Second Progress Report of the Special Committee on Steel Column Research."
1152.

WIDTSOE, JOHN A.

A National reclamation policy. 1381.

WIGHT, FRANK CLINTON.
Memoir of. 1623.

WILCOXEN, LEWIS C.

Excessive rainfall at Boston, Mass. 963.

WILEY, A. J.

"Past Experience with High Dams and Outlook for the Future." 130.

WILLIAMS, FRANK MARTIN.

Memoir of. 1626.

Niagara power. 34.

Memoir of through the second of the s

WILLIAMS, F. P.

Niagara power. 47.

WILLIAMS, WILLIAM FISH.

Memoir of. 1628.

WILLOUGHBY, WILLIAM.

James River Bridge project. 266.

WILSON, R. C.

"Construction of the James River Bridge Project." 244.

WITT, CARLTON CARPENTER.

Memoir of. 1630.

WOOD, CLYDE M.

Location of airports. 311.

WOOD, E. A.

"City Planning as Related to the Smaller Cities." 1075.

WRIGHT, JOSEPH.

High dams. 205.

YARNELL, DAVID L.

"Effect of Turbulence on the Registration of Current Meters." 766.

YEATMAN, MORGAN EDWARD.

Memoir of. 1632.

YOLTON, ROBERT ELGENE.

Memoir of. 1661.

YOUNG, SAMUEL McCAIN.

Memoir of. 1633.